**Title**: Doctor's mental health crisis: what can we do about it?

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**Word count**: 4,009

## Introduction

Doctors are the indispensable gatekeepers to the health care system, the frontiers of medical research, advocates of public health, the health educators for the general public, and serve as key players in a multi-disciplinary team in the high-octane functioning hospital system. They are responsible for the lives of millions of people every second across the globe. While saving lives and helping people can be tremendously gratifying, the medical profession is both extremely physically and emotionally demanding. Being entrusted the sacred task of caring for precious human lives while having to constantly sustain unparalleled clinical excellence, doctors undoubtedly have the world on their shoulders. Ironically, the perfectionist and conscientious nature of many physicians is working against them in maintaining a healthy state of mind (1). One of the most common misconceptions about doctors is their seemingly invincible mental fortitude. On the contrary, like any other human beings, physicians are just as vulnerable to stress and emotional toll brought upon by their responsibilities. Importantly, doctors often love their job so much that they place their own mental health second to their job to which they give everything and unyieldingly dedication, thereby making a sacrifice beyond what is expected of any other career. In fact, the mental health of doctors has been an emerging global concern (2-7). Media coverage in recent years has reported a number of doctors' death by suicide or various accounts of the difficulties experienced by junior physicians (8-10).

Poor mental health among doctors has a profound negative impact that extends beyond the well-being of doctors themselves. Poor mental health is known to compromise performance and executive functions. As one of the most crucial elements of the healthcare system, doctors suffering from mental health issues can become error-prone and inefficacious, therefore increasing the likelihood of fatal medical errors and jeopardising the quality of patient care. As a result, the harmonious bond and trusting relationships doctors have worked so hard to forge with their patients will be weakened, ultimately propagating the distrust of doctors among the general public.

Although mental health issues exist across the spectrum of young doctors to senior doctors, the issues are currently more common among the younger doctors due to stress exerted upon them by a multitude of factors, including but not limited to the professional culture, workplace environment and personal struggle (7). If left unattended, collapse of doctor's mental health could potentially transpire apathy and discourage doctors from making full commitments to clinical practice and serving in regions in need, which impose highly detrimental effects on the healthcare system and potentially exacerbate the existing problem of a shortage of doctors which is already notably pronounced in rural areas.

This purpose of this paper is to explore a staggering constellation of mental health issues and their aetiologies among doctors, including compassion fatigue, burnout, depression, substance abuse and suicide, and the strategies to ameliorate the current state.

## Compassion fatigue

Compassion fatigue, which is also known as secondary traumatic stress, is characterised by a gradual decrease of compassion over time fuelled by a myriad of emotional, physical and spiritual deprivation. This occurs as a result of frequent exposure to physically and emotionally suffering ~~of~~ patients in the healthcare setting (11). It is reported that up to 40% of doctors have at some point experienced compassion fatigue (12). This condition is markedly pronounced among professionals working in the mental health or intensive care setting and among junior doctors across many specialties (13, 14). Two of the main risk factors of compassion fatigue are perfectionism and conscientiousness, which are very common traits among doctors (1). It has been suggested that not having a proper outlet to vent frustrations and commotion, coupled with repeated guilt over self-perceived inadequacies after their patients progressively worsen or even die, have resulted in the development of compassion fatigue among junior doctors (11). Although compassion fatigue and burnout share many similar symptoms

such as depersonalisation and emotional exhaustion, they are two different conditions. While burnout is a response triggered by prolonged exposure to interpersonal and emotional stressors in the fast-paced work environment, compassion fatigue is often acute in nature. Compassion fatigue is one of the potent precipitators of burnout. If left untreated, it can lead to burnout, and eventually depression (15). Anecdotally, a number of physicians have reported the difficulty of sustaining the opening of compassion window over a long period of time when facing crippling work pressure and emotional distress from work (16). A number of individual-focused strategies have been suggested to manage compassion fatigue, including mindfulness, meditation, psychological counselling, and active social connection (11).

## Burnout

Precipitated by chronic stressors such as a heavy workload, emotional demand, and immense personal sacrifice, it is not unexpected for burnout to manifest and increase at an alarming rate among doctors. The hallmarks of physician burnout is characterised by depersonalization (emotional detachment and cynicism), emotional exhaustion, and diminished feelings of one's personal and professional achievements (17). Burnout has been linked to decreased career satisfaction, psychological distress, lowered productivity, suboptimal performance, and reduced professional commitment (5). The Maslach Burnout Inventory (MBI) is used to provide a measure of burnout across five domains, including cynicism, depersonalisation, emotional exhaustion, personal accomplishment and professional efficacy (18). Potentiated by stress, burnout is often recognised as the starting point of the cascade that drives doctors into depression and the worst case scenario, suicide (19). Despite varying in percentage, burnout is highly prevalent among doctors worldwide. A longitudinal study conducted between 2011 and 2014 in the US reveals that close to 40% of the physicians are suffering from burnout (5). Similar findings have also been reported in Australia (2). Notably, seniority of career, having children, being in a committed relationship, and work setting appear to attenuate the intensity of

various elements of burnout. In particular, younger physicians experienced a higher level of professional inefficacy, depersonalisation, emotional exhaustion compared to senior doctors (2). Moreover, physicians who are single or childless reported a significant higher rate of emotional exhaustion, cynicism and overall burnout rate than those with families and children (2). Doctors working in tertiary hospitals and group or solo practices reported a higher level of emotional exhaustion than those who are not working in patient care or without clinical duties (2). Evidently, having familial supports and an emotional outlet found in a healthy relationship might mitigate burnout or components of burnout to a certain degree. Individual-based interventions to improve doctor's resilience to burnout-inducing stressors and self-care managements such as coping techniques, mindfulness training, stress management, support groups, counselling, meditation, and psychotherapy are currently the management strategy of burnout in doctors (6).

**Depression**

Depression is one of the most devastating mental conditions affecting a large proportion of working physicians. About 20% of physicians in Australia have ever been diagnosed with depression at some point during their careers. Gender plays a role in depression since female doctors are more likely to suffer from depression than male doctors. Marital status likely plays a role in the rate of depression (2). Doctors who are divorced or single are more likely to suffer from depression compared to doctors who are married or are currently in a committed relationship. However, having children does not alter the risk of depression (2). Work setting and location are also contributors to physician depression (2). It has been reported that practitioners working in remote and rural regions are far more likely to receive a diagnosis of depression compared to those working in the metropolitan area (2). Among those who are diagnosed with depression or had felt depressed seek medical attention, only about 60% of them seek medical attention (2). This can be attributed to a number of factors such as stigma and demanding working hours.

Common risk factors for depression among doctors include social isolation accompanied by extremely long working hours on a daily basis, a failing marriage, financial distress, a family history of depression and being widowed (7). If left untreated, one might develop suicidal ideation or even attempt suicide. Current management options of depression include psychiatric consultation, cognitive-behavioural therapy, medications, and social support groups. Although depression is a serious mental condition, many doctors refuse to seek proper psychiatric attention or reach out for help due to a number of pre-existing psychological barriers in the working culture of medicine which will be explored later on. Instead, doctors often suffer in silence to avoid facing social and professional stigma such as being labelled as weak. At times, desperate physicians turn to self-prescribing which might confer long-term side effects such as substance abuse and possible engagement in self-destructive behaviours.

**Substance abuse**

Substance abuse as a means of coping with stress and burnout is highly prevalent among doctors. Alcohol abuse is the most common form of substance doctors turn to cope with psychological distress. Approximately 13% of Australian doctors display high-risk drinking behaviours while over 60% are practising moderate risk drinking behaviour (2). Among Australian doctors, the rate of moderate to high-risk of drinking behaviour as per the national guidelines and recommendations is attributed to gender, seniority, working location, relationship status, and a history of psychological distress (2). Male doctors are more likely to display high-risk drinking behaviour than female doctors. Younger doctors exhibit a higher rate of moderate to high-risk drinking behaviour compared to senior doctors (2). Similar to depression rate, doctors working in rural regions tend to have a higher propensity to display hazardous drinking behaviour compared to their counterparts in the metropolitan area. Divorced doctors have a significantly higher level of harmful drinking behaviour to those in a committed relationship. On the other hand, neither being single nor not having children have any effect

on drinking behaviour. Doctors with previous history of mental history, diagnosed with mental illness, or are currently experiencing high level of psychological distress are more prone to dangerous drinking behaviour than those who are under low to moderate level of psychological distress or without previous history of mental illness (2). In addition to alcohol consumption, it is estimated that around 8% of doctors have the habit of self-prescribing, about 2% have a habit of cigarette smoking, and about 5% of doctors have a history of illicit substance use (2).

Other common practitioner-specific risk factors of substance abuse among doctors include long working hours and stress, and easy occupational access to medication (20). Identifying the colleagues at risk of substance abuse can be challenging due to a number of reasons: 1) unwillingness of doctors to identify the signs and symptoms that corroborate substance abuse, 2) some doctors suffering from substance abuse appear to be asymptomatic and function reasonably well unless the condition is significantly advanced, and 3) the affected doctors exhaustively attempt to cover up their substance abuse problem (20).

Treatment of substance abuse often commences by focusing on the physical symptoms of substance abuse including overcoming initial drug craving and preventing withdrawal syndromes. The intermediate phase accentuates on psychological and emotional therapy, psychoeducation and behaviour modification program. The later phase is also known as the “mirror phase”, which involves the recovering doctor working with other doctors in the early phase of the treatment, thereby gaining better insights about the condition and help prevent relapse by observing the effect of substance abuse manifesting in other people (20).

According to a survey among physicians, recreational thrills is rarely the reason behind prescription medication abuse among doctors, rather it is their means to cope with personal grief, interpersonal emotional strain, physical pain and work-related stress (21). Often substance abuse is a

consequence of extreme psychological stress endured during work and mental health condition such as depression. If left untreated, the affected doctors' judgment and executive functions will eventually be impaired, which render them unsafe while performing their clinical duties. Along with high relapse rate, substance abuse is a dangerous condition and a costly sequela of psychological distress.

**Suicide**

Suicide is the most severe and most undesirable consequence of mental conditions such as burnout and depression. The prevalence of suicidal thoughts and suicide attempts among doctors is significantly higher than those among the general population (2, 22, 23). Notably, the suicide rate of doctors is the highest among any other profession (24). Having family support is once again is a protective factor. Doctors with children, married, or in a committed relationship exhibited a lower rate of suicidal thoughts and suicide attempt compared to those without children and those who were divorced or separated (2). Historically, medical specialties such as anaesthesiology and psychiatry are at a higher suicide risk than other medical specialties (22, 25, 26). Some of the most significant predisposing factors of suicide among doctors include physical and emotional hardships at work, a history of substance abuse, previous history of mental illness such as depression, financial and relationship problems, single status and a lack of important social support groups prior to suicide attempts (23, 27, 28).

Alarmingly, a number of deaths by suicide among junior doctors have also surfaced in recent years in Australia. Media reported three trainee doctors died by suicide in 2017 while four died by apparent suicide in 2015. It has also been estimated that no less than 20 doctors died by suicide since 2007 in Australia (10). To date, there is a paucity of evidence to evaluate the effectiveness of various suicide prevention strategies. Early detection from proper psychiatric counselling, psychoeducation about self-care, relationship management, social support network, and encouragement to seek help

have been the main strategies taught in medical school and training programs to mitigate suicide risk among physicians (23, 27). Given the shortage of doctors in areas in need and the high cost of training a doctor, the loss of medical practitioners due to suicide is extremely costly to the healthcare system. Therefore, although suicide is the least likely consequence of burnout among doctors, the gravity of the overall state of the current doctor's mental health is still dire.

**Current strategy to combat doctor's mental health issues and unresolved deeper problems**

Recent interventional development has been focusing on burnout prevention and management because it is the early pivotal point in the depression cascade (6, 19). Particularly, the emphasis is placed on individual-focused intervention that aims to enhance individual emotional needs and doctor's resilience – the ability to overcome stressors that are conductive to burnout. Various coping techniques have been suggested for doctors to fine-tune their resilience to attenuate the impact of burnout and depression, including but not limited to physical exercise as a means of tension relaxant, practice of mindfulness, reaching out to support groups, seeking spiritual advice, and development of positive outlook.

In 2016, West *et al.* conducted a meta-analysis of various individual-based intervention of physician burnout by capitalising on cohort studies and randomised controlled trials across different countries. The analysis reveals a significant reduction in emotional exhaustion, depersonalisation, exhaustion and overall burnout from 38% to 24%, 38% to 34% and 54% to 44%, respectively (6). On paper, the statistical improvement appears impressive; however, it is uncertain whether solely relying on individual-based interventions is the most effective solution in combating the current mental health issues epidemic among doctors. The evidence of interventions included in the analysis is almost exclusively individual-based, while studies on intervention at a system or organisational level are sparse (6).

Despite statistical improvements resulting from the established individual-based strategies and resilience training, a large number of doctors still express helplessness in the face of the burnout and depression problems. The continued mental health distress shows no sign of backing down for Australian doctors. Insights into the roots of the problems can be illustrated from a number of factors including psychosocial barriers to seek proper help, unforgiving working and professional culture, bullying in the professional environment, unreciprocated cry for help, and the competitive nature of the job market for the current crops of junior doctors.

One of the prevailing cultural practices in medicine is to be resilient and tough. This is where the "perfectionist and masculine" nature of doctors becomes their own worst enemies. This has ingrained in many doctors' mindset that one should stay silent in the face of suffering and suffering makes one stronger. Giving into seeking proper help equates failures and would put a dent on their pride. As a result, this induces a sense of fear of failure and a fear of being perceived as being weak. Although recommendations in the healthcare system encourage doctors to seek help when the psychological distress becomes unbearable, a striking number of doctors are reluctant to seek the help they need due to the stigma, fear of losing face and being ridiculed by colleagues and seniors. Even if some doctors chose to seek help, they also fear that the record of having sought psychiatric assistance might put a blemish on their track record, thereby permanently limiting their career trajectory, or even the loss of ability to practice medicine. In 2017, a doctor trainee had her license suspended after being admitted to the psychiatric ward. Compounded by extreme level of stress experienced at work and the exceedingly high expectation she set for herself, the said doctor ultimately took her own life months after her admission (10). Therefore, this powerful psychological barrier has prevented many suffering doctors from seeking the proper medical attention they need before the situation becomes too advanced.

On top of the "suffer in silence" culture, the exceeding drive for success amidst the competitive nature of the training program admission and securing a long-term position in the future place enormous amount of stress on junior doctors. One of the prevailing indoctrinations in medicine maintains that success is a function of logging excessive working hours and the ultimate survival of the fierce competition among their peers. As a result, many junior doctors often find their working environment hostile and antisocial. A lack of ideal social channels in the workplace can be detrimental to doctors' mental health well-being.

Institutionalised bullying and unprofessional demeanour and treatment of colleagues are reportedly rampant in the healthcare environment in Australia (29). Bullying in a professional setting can be characterised by 1) the showcase of aggressive behaviour such as making threats and yelling, 2) the display of passive aggressive behaviour such as public humiliation, public criticising a co-worker or a use of condescending tone when speaking to a colleague. Also, many express that their concerns often land on deaf ears and their requests are not reciprocated or properly addressed by their employers. Coupled with frequent emotional abuse from the patients, the psychological toll on the doctors in training is made even harder to shoulder. Consequently, some doctors even develop resentment towards the medical profession for which they once exuded their greatest passion and with which their ideals once perfectly aligned.

As mentioned previously, death by suicide among junior doctors has attracted media attention and such a trend is on the rise (10). These suicide cases are driven by a number of factors, including a lack of work-life balance, inefficient and insufficient support network, the psychological barriers that prevent doctors from seeking proper help, and the competitive nature of admission into the training programs of desire due to nationwide shortage, and the supply of specialty trainees severely outpacing the limiting number of senior positions (consultant) available in certain specialties. For some highly competitive specialties and positions, a number of trainee even considered doing further lengthy

training such as pursuing a research doctorate or other advanced certifications to increase their competitive edge. Often the thoughts of having to undertake such arduous tasks overwhelm them mentally.

The established means such as counselling and social support groups would be rendered relatively ineffective if the suffering doctors are not willing to seek help in the first place due to a conglomeration of psychosocial barriers such as stigma stemming from the culture, fear of bullying and alienation. It should be noted these unfavourable factors are generated from the existing working environment and the culture of the healthcare system. It has become apparent that individual-based interventions for burnout are insufficient to efficaciously address the mental health issues prevalent in the contemporary healthcare working environment. Indeed, the established system and healthcare working environment form the major source of the stressors. The most effective strategy should target the system level as a whole rather than solely intervening at an individual level. A new environment is needed to encourage doctors open up and seek help as needed without suffering any form of repercussions and social stigma. Holistic approaches are needed to address the social framework of the workplace surrounding rather than treating mental health issues as an isolated symptom or disease. A focus might be needed to address the psychosocial factors deeply embedded in the professional atmosphere, culture and political climate of the healthcare system.

## Beyond the paradigm of resilience and individual-based interventions

The current paradigm of managing doctor's mental health revolves around individual self-care and resilience training, which have been effective from a statistical point of view as discussed earlier. However, effectiveness of combating the epidemic of mental health issues among doctors would be amplified if improvements can be made at a system level on the parts of the administration and employers. In particular, strategies should tackle the unhealthy aspects of the current working culture

and environment of doctors such as bullying, social isolation, the stigma of seeking help, and the "suffer in silence" mentality. Ideally, both individual-based and system-based intervention can be synergistically utilised to address doctor's mental health crisis. Secondly, it is imperative to address the stressors stemming from job shortage and the daunting prospect for the current junior doctors. It would be ideal if policy and regulations implementation can be undertaken to allocate more funding and resources to provide more career opportunities at the consultant level. Expansion of junior doctors and consultant positions will also help address the oversupply of medical students across the nation.

A longitudinal study conducted in Norway reported a significant drop in suicidal thoughts among doctors from the period of 2000 to 2010 (30). The findings were attributed to the combination of high level of job satisfaction, regular tolerable weekly work hours, good work-life balance, and a working culture that is more tolerant and accepting for doctors to seek help when under emotional distress (30). Perhaps there is something that can be learned from the Norwegian system. Instead of fighting the stress heads on at an individual level, gradually implementing holistic changes to the current working paradigm and environment might be the way to go.

## Conclusive remark

One should be cognizant of the inherent stressful nature of the medical profession which is acceptable. However, the aberrant rise of mental health problems among doctors is unnerving. There is no one-size-fits-all or any miraculous formula that could eradicate all stress-induced mental health issues amongst doctors within a short space of time; however, it does not imply we should maintain status quo. Neglecting the mental health needs of future generations of doctors would yield dire consequences.

The gravity of the epidemic of mental health issues of doctors warrants implementation of effective strategies that requires efforts from the healthcare system administration to reform the current

working environment and the detrimental dogma, as well as from the federal government to introduce proper regulations, policy changes, and resource allocation to correct the discrepancy between trainees and the senior doctor positions available. Working in tandem with the established individual-focused interventions, the reform of the current working culture of doctors and the amelioration of the underlying job shortage crisis have promising potential in effectively staunching the rising mental health problem epidemic.

Like any other professions, it is absolutely paramount for doctors to sustain their passion at work and to enjoy working in their environment that enable work-life balance, as well as interpersonal and emotional harmony. By establishing a professional environment that nurtures effectiveness, joy, friendly dynamic, and respect among colleagues, healthy mental state can truly be sustained and the tide of doctor mental health crisis can be turned. After all, who does not want to pursue true happiness in their work?

**Acknowledgement**

I would like to extend my gratitude to Mr. David Arroyo and Ms. Jessica Arentz for their invaluable input and suggestions which substantially improve the quality of this submission.

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